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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/954,915

09/17/2001

Mark Peting

50588/344

8610

32641

7590

11/16/2006

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EXAMINER

TRAN, KHAI

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/954,915

Applicant(s)

PETING, MARK

Examiner

KHAI TRAN

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7 sheets</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, line 7, the term "the frequency domain" lacks antecedent basis; line 9, the term "the time domain" lacks antecedent basis.

Regarding claim 10, line 3, the term "the buffer" lacks antecedent basis.

Regarding claim 20, lines 6-7, the term "the frequency domain" lacks antecedent basis; line 12, the term "the time domain" lacks antecedent basis.

Regarding claim 30, line 8, the term "the frequency domain" lacks antecedent basis; line 10, the term "the time domain" lacks antecedent basis.

Regarding claim 39, line 3, the term "the buffer" lacks antecedent basis.

Claims 2-9, 11-19, 21-29, 31-38, 40-48 are rejected by virtue of their dependency.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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3. Claims 1, 3-4, 16, 20, 23-25, 30, 32-33, 43, 45 are rejected under 35

U.S.C. 102(e) as being anticipated by Loomis et al (U.S. Pat. 6,990,140).

Regarding claim 1, Loomis et al disclose an apparatus for convolving digital samples from a plurality of cables or satellite multimedia signal carriers as shown in Figures 2-4, comprising: a Fast Fourier Transform (FFT) module (176) to transform a plurality of time based digital samples from each of the signal carrier into a plurality of frequency coefficients; a multiplier (178) to multiply of frequency coefficient by a plurality of filter coefficients to produce filtered coefficients in the frequency domain (see col. 11, line 3-37 showing an I code multiplier 178 multiplies the frequency domain I baseband signal by the frequency domain I replica code signal for providing a frequency domain I despread GPS signal to the IFFT 180. Similarly, the Q code multiplier 178 multiplies the frequency domain Q baseband signal by the frequency domain Q replica code signal for providing a frequency domain Q despread GPS signal to the IFFT 180); an Inverse Fast Fourier Transform (IFFT) module (180) to convert the filtered coefficients from the frequency domain into the time domain to produce convolve, time-based digital samples for each of the signal carriers (see col. 11, lines 28-37).

Regarding claim 3, Loomis et al disclose a GPS receiver in the satellite communication system. Therefore, a use of plurality of carriers such as a plurality of satellite transponders are inherent in the GSP receiver.

Regarding claim 4, a use of a plurality of cable carriers is inherent in the GSP receiver.

Regarding claim 16, Loomis et al disclose that the multiplier is a complex multiplier and the frequency coefficients is complex frequency coefficients having in-phase (I) and quadrature (Q) components (see col. 11, lines 13-37).

Claim 20 is similar to claim 1, Loomis et al further disclose an N-point Fast Fourier Transform (FFT) and an M-Inverse Fast Fourier Transform (IFFT) (having 2048 I integrations and 2048 Q integrations).

Claims 23-24 are similar to claims 3-4. Therefore, claims 23-24 are rejected under a similar rationale.

Regarding claim 25, Loomis et al disclose wherein the time-based multimedia data are comprised of in-phase (I) and quadrature (Q) components (see Figure 4).

Claims 30, 32, 33, 43, 45 are similar to claims 1, 3, 4, 16, 20. Therefore, claims 30, 32, 33, 43, 45 are rejected under a similar rationale.

Allowable Subject Matter

4. Claims 2-9, 11-19, 21-29, 31-38, 40-48 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sullivan (US 2002/0064210 A1) discloses a GSP receiver.

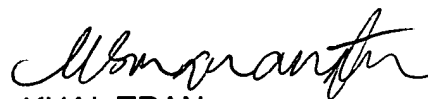
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Chaput et al (U.S. Pat. 6,476,758) disclose a flexible digital ranging system and method.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI TRAN whose telephone number is (571) 272-3019. The examiner can normally be reached on 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAY PATEL can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



KHAI TRAN
Primary Examiner
Art Unit 2611